► Ψ Time and Information: The Origins of 'Time' from Information Flow In Complex Systems

Ψ Scott M. Hitchcock

An Invited Talk Given at Ψ The Institute For High Energy Physics, Protvino, Russia.

► Presented: Friday, June 29, 2001 54.86764097986402 N, 37.20265645127687 E

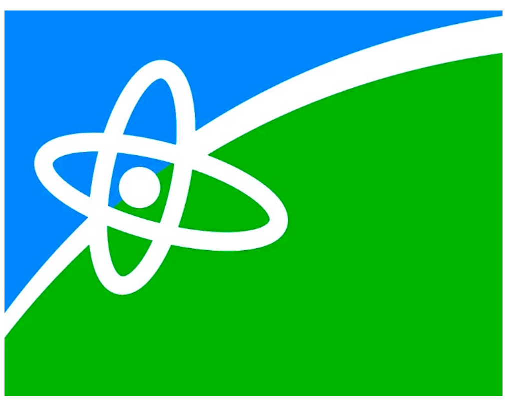
► A VERY SPECIAL AND WARM THANKS TO Ψ VLADIMIR A. PETROV OF

Ψ IHEP FOR MAKING THIS HISTORIC MOMENT POSSIBLE!

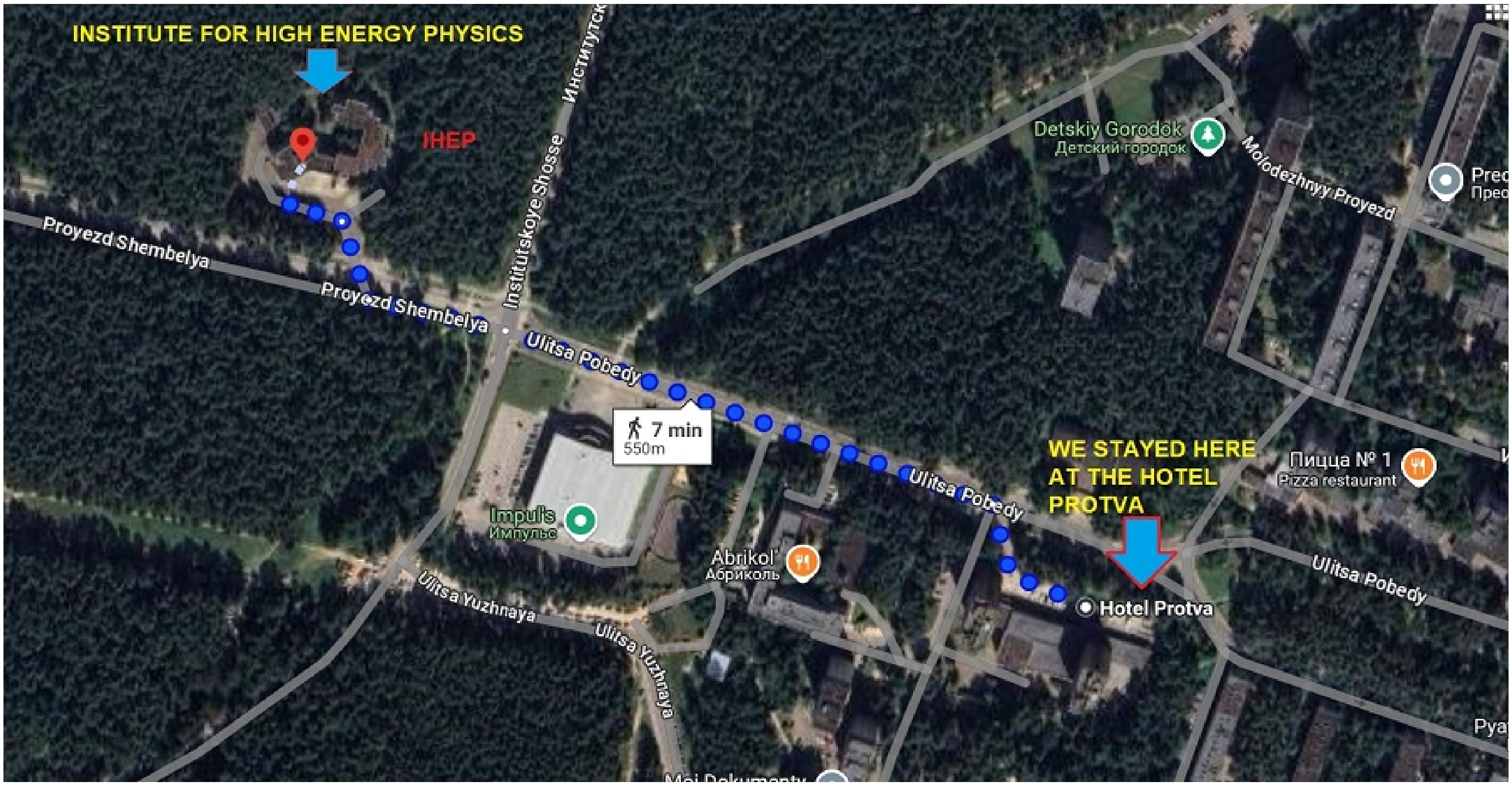


ABOVE IS THE INSTITUTE FOR HIGH ENERGY PHYSICS, PROTVINO, RUSSIA.

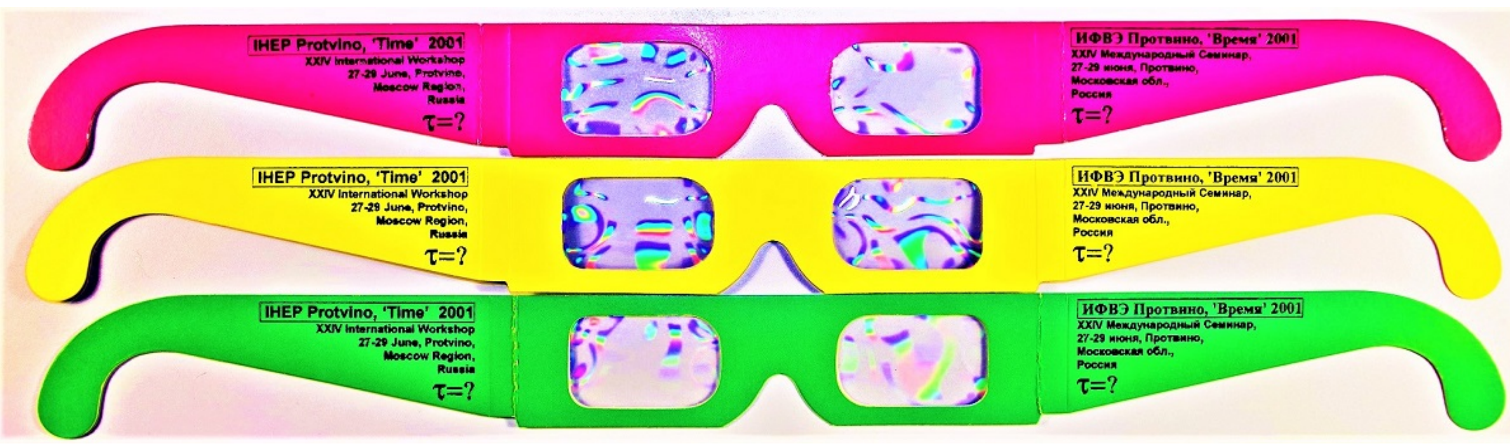
WHERE SCOTT PRESENTED HIS TALKS IN 2000 AND 2001.



THE PROTVINO & IHEP FLAG



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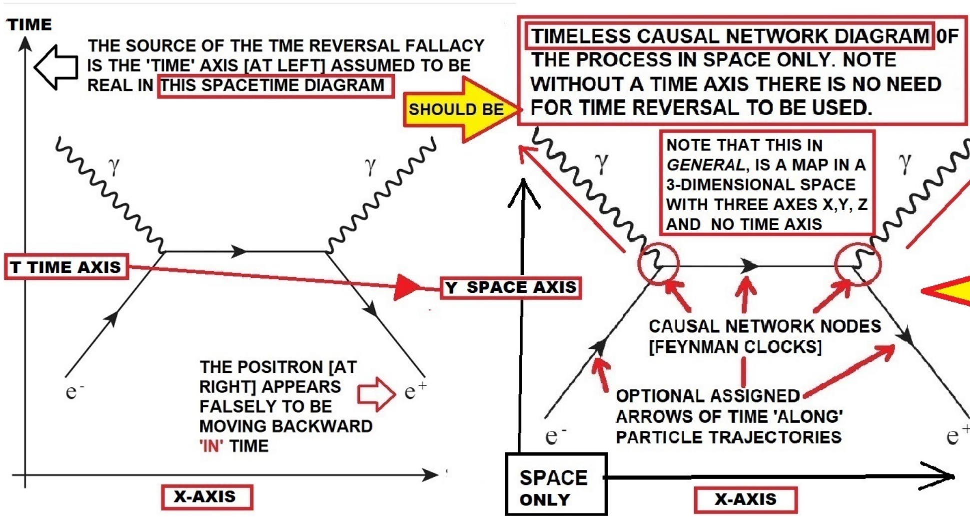


These are the CUSTOM MADE in USA DIFFRACTION GRATING GLASSES ABOVE [transmission type] that I brought to give to all the participants of the workshop at IHEP [The Institute For High Energy Physics], Protvino, Russia was for my Invited Talk Presented: Friday, June 29, 2001:

"Time and Information: The Origins of 'Time' from Information Flow In Complex Systems"

Photons are everywhere! The idea here was to bring a new way to view at the universe through its most important phenomenon - photons. They allow us to get spectra from things that would otherwise be invisible to us without light being reflected or emitted from them. Photons give us the tools to understand the nature of all the material objects that make up the universe and to determine the fundamental processes driving the evolution of these objects of observable matter in the universe.

Photons carry information that upon detection can be processed and used by our conscious brain to construct the 'reality' and they're everywhere! They fill the vacuum sea between all matter. Even if they don't find their way into our eyes they are everywhere in space. Space is dark unless we detect them in which case our brains process them into the images that color our maps of reality. Photons are the waves on the vacuum ocean of hidden energy.





WHY Feynman's Positron Time Reversal Proposal in 1949 is WRONG AND THE TIME REVERSAL & TRAVEL MYTHS are *FINALLY CLEARED UP* by SCOTT MATHESON HITCHCOCKS THEORY OF TIME

SCOTTS NEW THEORY OF TIME: WHERE TIME IS COMPUTED FROM INFORMATION EXTRACTED AND PROCESSED FROM SIGNALS BY A *SYSTEM* COMPOSED OF CAUSAL NETWORKS, FEYNMAN CLOCKS [AS NODES IN THE CAUSAL NETWORKS], STANDARD CLOCKS [FOR CALIBRATION], AND THE BRAINS T-COMPUTER.

►►►►► A SYSTEMS APPROACH GIVES US THE *SOLUTION* TO THE PROBLEM OF TIME:

FOR SIMPLE SYSTEMS, ACCORDING TO THE PRINCIPLE OF OCCAM'S RAZOR THE SIMPLEST EXPLANATION FOR OBSERVED BEHAVIORS IS THE BEST CHOICE. BUT FOR COMPLEX SYSTEMS, A *SYSTEMS APPROACH* IS NECESSARY FOR UNDERSTANDING THE OBSERVED PHENOMENA. CLEARLY SIMPLE EXPLANATIONS ABOUT THE FUNDAMENTAL NATURE IF TIME ARE NOT ADEQUATE, THIS IS WHY SCOTT REALIZED THAT TO UNDERSTAND THE NATURE OF TIME HIS SYSTEMS APPROACH WORKS TO CLARIFY ISSUES ABOUT THE FUNDAMENTAL PHYSICS AND NATURE OF TIME.

►►►►► THE PERCEPTION OF TIME IN THE 'NOW' OF OUR CONSCIOUSNESS:

ALL OUR BODIES SENSES SEND SIGNALS ORIGINATING IN OUR ENVIRONMENT OR OUR BODIES TO OUR BRAIN FOR PROCESSING INTO OUR PERCEPTION OF REALITY CURRENT WITH OUR SENSE OF 'NOW'.

THIS SUBJECTIVE '*NOW*' OF OUR CONSCIOUSNESS IS LOCATED IN THE BRAIN. OUTSIDE THIS REGION OF THE BRAIN INCLUDING OTHER PARTS OF THE BRAIN AND BODY COULD BE THOUGHT OF AS '*NOT-NOW'.*

SINCE THE *NOW* OF CONSCIOUSNESS IS ALL WE CAN EVER EXPERIENCE, IT IS ALSO THE LOCATION OF OUR SENSE OF TIME, SIMULTANEOUS WITH OUR CONSCIOUS THOUGHTS AND IMAGES OF THE 'EXTERNAL' OBSERVED REALITY.

ALL OF THE 'T*IME DELAYED*' INFORMATION COMING AS *SENSE SIGNALS* INTO OUR BRAIN FROM OUR BODIES AND OUR SENSE OBSERVATIONS ORIGINATES IN THE *NOT-NOW UNIVERSE OUTSIDE OUR CONSCIOUSNESS*. THIS IS THE REASON OUR CONSCIOUSNESS COMPOSES AN ONGOING PROGRESSION OF SEQUENTIAL IMAGES OF REALITY IN OUR CURRENT STATE OF NOW THAT ARE *RELICS OF THE 'PAST' CONFIGURATION OF THE NOT-NOW UNIVERSE* SURROUNDING OUR CONSCIOUS BRAIN.

THESE SENSE SIGNALS HAVE *TRAVEL TIME DELAYS* ALONG THE NEURAL PATHWAYS THAT WHEN ADDED TO THE TRAVEL TIMES FROM THE FROM THE SIGNAL ORIGINS TO SUBSEQUENT DETECTION BY THESE SENSE CELLS LEADING TO A *NET TIME DELAY* TO OUR BRAIN.

THE TOTAL TIME DELAY IS A MEASURE OF FACT THAT WHAT WE PERCEIVE AS 'NOW' IN OUR CONSCIOUSNESS IS REALLY THE 'PAST' *NO MATTER HOW SHORT THE NET DELAY TIMES ARE.*

ALL WE CAN REALLY SENSE ABOUT THE OBSERVABLE WORLD IS A 'PAST CONFIGURATION - NO MATTER HOW '*IMMEDIATE*' IT MAY SEEM. THE PAST OF THE NOT-NOW UNIVERSE IS ALREADY GONE BY THE TIME WE PERCEIVE IT IN OUR CONSCIOUSNESS.

IT IS THE INFORMATION CARRYING SIGNALS FROM THE *NOT-NOW* UNIVERSE THAT IS PROCESSED BY OUR *NOW* USING THE BRAINS T-COMPUTER TO STORE TIME LABELED MEMORIES FOR LATER CONSTRUCTIONS OF OUR *MAPS* OF THE PAST.

MEANWHILE, THE *EXTERNAL OBJECTIVE UNIVERSE* HAS EVOLVED INTO ITS 'PRESENT' CONFIGURATION. THE 'NOW' OF OUR CONSCIOUSNESS IS A RECORD OF THE *NOT-NOW* 'PAST'. OUR SUBJECTIVE NOW IS THE OBJECTIVE PAST OF THE NOT-NOW UNIVERSE.

FORTUNATELY THE EXTERNAL WORLD DOESN'T GENERALLY CHANGE MUCH DURING THE SHORT TIME WE TAKE TO FORMULATE A PICTURE IN OUR CONSCIOUSNESS OF PERCEIVED 'REALITY'. THIS CREATES THE I*LLUSION OF CONTINUITY OF THE OBSERVED WORLD IN OUR MINDS* MUCH LIKE SUCCESSIVE FRAMES IN A MOVIE OR ON A COMPUTER MONITOR.

►►►THEREFORE WE ARE ALWAYS LIVING IN OUR *SUBJECTIVE CONSCIOUS NOW BASED ON THE NOT-NOW PAST STATE OF THE OBJECTIVE 'EXTERNAL' OBSERVABLE UNIVERSE*, EVEN IF THE NOT-NOW PAST ONLY OCCURRED MILLISECONDS AGO.

THE TIME IS 'NOW' AND 'NOW' IS THE TIME!